

## Claims

1. A method for deciding whether a specific file on a target computer should be backed up to a central storage system, said method comprising the steps of:
- 5       computing a specific hashing key from the content of said specific file;
- verifying if said specific hashing key is already present in a local, wherein, for each computer file on said target computer which has been previously backed up, said local database comprises a record including:
- 10       a file hashing key computed from said computer file; and
- a local file path in said target computer where said computer file should be restored, said file path being associated with said file hashing key;
- 15       if said specific hashing key is not present in said local database, backing up said specific file by performing the steps of:
- 20       A.   creating a backup file which is a duplicate of said specific file;
- B.   renaming said backup file to said specific hashing key;
- C.   storing said renamed backup file in said central storage system; and
- 25       D.   storing in said local database a new record including said specific hashing key and a specific path in said target computer where said specific file should be restored; and
- 30       if said specific hashing key is present in said local database not backing up said specific file in said central storage system.

2. The method according to claim 1, further comprising the steps of:

5 verifying if said specific hashing key is already present in at least one central database of file hashing keys derived from computer files already backed up in said central storage system; and

backing up said specific file if and only if said specific hashing key is not present in said at least one central database of said central storage system.

3. The method according to claim 2, wherein said target computer is connected to a LAN and further wherein said central storage system is connected to said LAN by a WAN.

4. The method according to claim 1, wherein a plurality of target computers are connected with said central storage system, and further wherein said specific file is not backed up if it is already present in said central storage system as the result of a backup from any target computer.

5. The method according to claim 4, wherein the location of said renamed backup file in said central storage system depends on said specific hashing key.

6. The method according to claim 5, wherein said central storage system comprises a plurality of storage devices.

7. A method for restoring a specific file to a target computer, said method comprising the steps of:  
requesting a specific hashing key corresponding to said specific file from a local database storing a previously computed hashing key for each backed up computer

file;

requesting a specific path location associated with said specific hashing key from said local database;

10 using said specific hashing key to retrieve a backup file from a central storage server, said backup file being a duplicate of said specific file; and

saving said backup file to said specific path location on said target computer.

8. The method according to claim 7, wherein the location at which said backup file has been stored in said central storage server depends on said hashing key.

9. The method according to claim 8, wherein the name under which said backup file has been stored in said central storage server depends on said hashing key.

10. A system for backing up a specific file on a target computer comprising:

means for computing a specific hashing key from the content of said specific file;

5 means for verifying if said specific hashing key is already present in a local database, wherein, for each computer file on said target computer which has been previously backed up, said local database comprises a record including:

10 a file hashing key computed from said computer file; and

a local file path in said target computer where said computer file should be restored, said file path being associated with said file hashing key;

15 means for backing up said specific file if said specific hashing key is not present in said local database, said backing up comprising the steps of:

A. creating a backup file which is a duplicate

of said specific file;

20           B.     renaming said backup file to said specific hashing key;

          C.     storing said renamed backup file in said central storage system; and

          D.     storing in said local database a new record  
25 including said specific hashing key and a specific path in said target server where said specific file should be restored;

          wherein, if said specific hashing key is present in said local database, said specific file is not backed up.

11.     The system according to claim 10 being a central storage system, and further comprising means for verifying if said specific hashing key is already present in at least one central database of said central storage system, said  
5 central database including file hashing keys derived from computer files already backed up in said central storage system, wherein said means for backing up is performed only if said specific hashing key is not present in said at least one central database.

12.     The system according to claim 11, wherein said target computer is connected to a LAN and further wherein said central storage system is connected to said LAN by a WAN.

13.     The central storage system according to claim 10, wherein a plurality of target computers are connected with said central storage system, and further wherein said specific file is not backed up if it is already present in  
5 said central storage system as the result of a backup from any target computer.

14. The central storage system according to claim 13, wherein the location of said renamed backup file in said central storage system depends on said specific hashing key.

15. The central storage system according to claim 10, further comprising :

means for restoring said specific file from said central storage system to said target computer, comprising:

5 means for requesting said specific hashing key corresponding to said specific file from said central database;

10 means for requesting said specific path location associated with said specific hashing key from one of said local databases and said central database;

means for using said specific hashing key to retrieve said backup file from said system; and

means for saving said backup file on said target computer to said specific path location.

16. The system of claim 15, wherein, during said backing up, if said specific hashing key is not present in said local database, said backup file is renamed to said specific hashing key before storing said backup file in  
5 said central storage system, and further wherein, during said restoring, said backup file is renamed to the name of said specific file before saving said backup file to said target computer.

17. A computer program product stored on a computer-usable medium comprising computer-readable program means for causing said computer to perform the steps of claim 1.